

In the Claims:

1. (Currently Amended) A composition ~~for inducing chondrogenesis and/or skeletal development in a vertebrate, the composition~~ comprising: an RAR antagonist and a pharmaceutically acceptable carrier, wherein said composition induces chondrogenesis or chondrogenesis and related skeletal development in a vertebrate

- 01*
- (a) ~~an RAR antagonist; and~~
 - (b) ~~a pharmaceutically acceptable carrier.~~

2. (Currently Amended) The composition as claimed in claim 1, further comprising a protein selected from the group consisting of a bone morphogenetic protein (BMP), an osteogenic protein (OPS), ~~and~~ a cytokine, and combinations thereof.

3. (Original) The composition as claimed in claim 2, wherein said BMP is selected from the group consisting of BMP-2, BMP-4 and BMP-5.

4. (Original) The composition as claimed in claim 3, wherein said osteogenic protein is OP-1.

5. (Currently Amended) The composition of claim 1, wherein the RAR antagonist is present in an amount capable of stimulating chondrogenesis or chondrogenesis and associated differentiation of skeletal progenitor cells.

02

6. (Currently Amended) The composition of claim 1, wherein said composition is provided as a solution, suspension, gel, matrix, cream, film, paste, capsule, pill, tablet or encapsulated within liposomes.

7. (Original) The composition of claim 1, wherein said composition is administered via intra-articular injection.

8. (Original) The composition of claim 1, wherein said composition is provided within a biodegradable implantable matrix.

9. (Currently Amended) ~~The use of a composition comprising an RAR antagonist and a pharmaceutically acceptable carrier,~~ A method for inducing chondrogenesis or chondrogenesis and associated skeletal development in a vertebrate, said method comprising administering a therapeutically effective amount of an RAR antagonist and a pharmaceutically acceptable carrier to said vertebrate.

C3 10. (Currently Amended) ~~The use of a composition~~ method of claim 9, wherein said use is *in vitro* administration is local or systemic.

11. (Currently Amended) ~~The use of a composition~~ method of claim 9, wherein said use administration is *in vitro* or *in vivo*.

12. (Original) A morphogenic device for implantation in a vertebrate, the device comprising:

- (a) an implantable biocompatible carrier; and
- (b) an RAR antagonist dispersed within or on said carrier.

13. (Original) The device according to claim 12, wherein said carrier comprises demineralized, protein-extracted, particulate, allogenic or xenogenic bone.

14. (Original) The device according to claim 12, wherein said device comprises mineral-free, delipidated Type I insoluble collagen.

15. (Original) The device according to claim 12, wherein said device comprises a biodegradable sponge.

16. (Withdrawn)

17. (Currently Amended) A method for promoting *in vivo* integration of an implantable prosthetic device, into a target ~~earilage~~ tissue of a vertebrate, the method comprising the steps of:

(a) providing on a surface of the prosthetic device a composition comprising an RAR antagonist and a pharmaceutically acceptable carrier; and

C4 (b) implanting the device in a vertebrate, at a site where the target ~~earilage~~ tissue and surface of the prosthetic device are maintained at least partially in contact for a time sufficient to permit enhanced tissue growth between the target ~~earilage~~ tissue and the device.

18. (Currently Amended) The method according to claim 18 ~~17~~, wherein said target tissue is selected from the group consisting of cartilage and bone.

19. (Original) A method of treating a cartilage associated degenerative condition in a vertebrate comprising the step of administering a pharmaceutical composition as claimed in claim 1.

20. (Original) A method for promoting chondrogenesis and associated bone tissue formation at a site of skeletal surgery in a vertebrate, the method comprising the steps of delivering an RAR antagonist composition at the site of skeletal surgery wherein such delivery promotes the formation of new bone tissue.

21. (Original) A method for repairing large segmental skeletal gaps and non-union fractures arising from trauma or surgery in vertebrates, the method comprising delivering a RAR antagonist composition at the site of the segmental skeletal gap or non-union fracture wherein such delivery promotes chondrogenesis which mediates the formation of new bone tissue.

22. (Withdrawn)

23. (Withdrawn)

24. (Currently Amended) A method for treating degenerative joint disease characterized by cartilage degeneration, said method comprising:

C5 delivering a therapeutically effective amount of an RAR antagonist to the site of disease, wherein such delivery stimulates chondrogenesis at said site of disease.

25. (Original) The method according to claim 24, wherein said RAR antagonist is delivered by intra-articular injection.

26. (Original) The method according to claim 24, wherein said disease is arthritis.

30. (New) The composition of claim 1, wherein said RAR antagonist antagonizes one or more of RAR α , RAR β and RAR γ .

C6 31. (New) The composition of claim 1, wherein said composition is administered for the treatment of arthritis, abnormal cartilage formation, cartilage defects, or bone defects, and combinations thereof.
